

Figure 1

HO OH OH PPh<sub>3</sub> NH + 
$$H_2N-R$$
  $\longrightarrow$  26-34

 $t ext{-Boc-L-Serine}$   $\beta ext{-lactone}$ 
24 25

Figure 2

Figure 3

**60** R = 
$$(CH_2)_{17}CH_3$$
  
**61** R =  $(CH_2)_{11}CH_3$   
**62** R =  $(CH_2)_{15}CH_3$ 

66-68

Figure 4

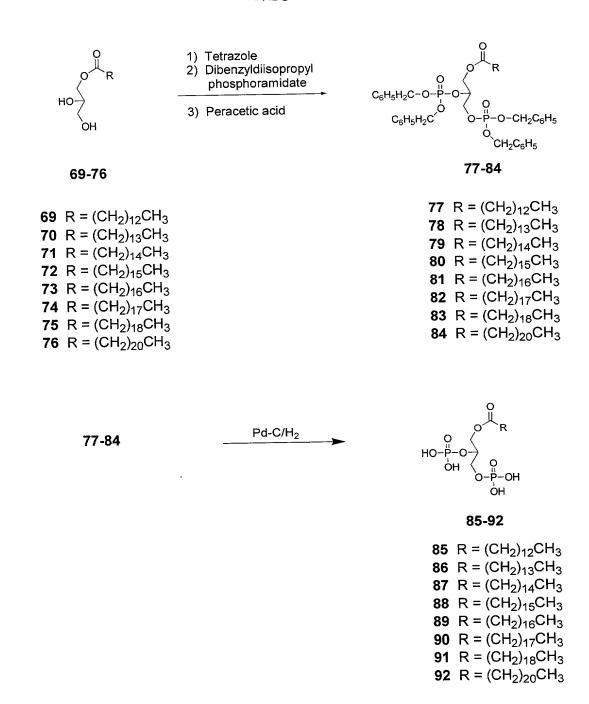


Figure 5A

### Figure 5B

Figure 6A

Figure 6B

Figure 7A

Figure 7B

Figure 7C

$$CH_{3}(CH_{2})_{n}O \xrightarrow{\qquad P \qquad OBn \qquad \qquad } CH_{3}(CH_{2})_{n}O \xrightarrow{\qquad P \qquad OH \qquad } CH_{3}(CH_{2})_{n}O \xrightarrow{\qquad P \qquad OH \qquad } OH$$

Figure 8

1. 1/H-Tetrazole, Dibenzyl-
N,N-diisopropyl phosphor-
amidite, 
$$CH_2Cl_2$$
 $CH_3(CH_2)_nSH$ 

2. Peracetic acid

 $CH_3(CH_2)_nS$ 
 $CH_3(CH_2)_$ 

Figure 9

1. 
$$1H$$
-Tetrazole, Dibenzyl-
N,N-diisopropyl phosphor-
amidite,  $CH_2Cl_2$ 

CH<sub>3</sub>(CH<sub>2</sub>)<sub>n</sub>NH<sub>2</sub>

2. Peracetic acid

O

 $CH_3(CH_2)_nN$ 

O

 $CH_3$ 

Figure 10

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## Figure 11

Figure 12

HO 
$$\stackrel{+}{N}$$
 N-R  $\stackrel{+}{N}$  1. Tris(1,2,4-triazole)phosphate  $\stackrel{-}{N}$  NH  $\stackrel{-}{N}$ 

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#### Figure 13

$$C_6H_5H_2C_O-P-O$$
 $N-R$ 
 $C_6H_5H_2C_O-P-O$ 
 $N+R$ 
 $N-R$ 
 $N-$ 

Figure 14

$$\begin{array}{c} \text{Br} \\ + \text{ ROH} \end{array} \begin{array}{c} \text{1) } \text{K}_2\text{CO}_3 \\ \hline \text{2) } \text{C}_6\text{H}_6\text{CH}_2\text{N}^+\text{(C}_2\text{H}_5\text{)}_3\text{ CI}^-} \end{array} \begin{array}{c} \text{OR} \\ \hline \text{OR} \\ \hline \\ \text{ON} \end{array} \begin{array}{c} \text{1 M HCl/Ether} \\ \hline \\ \text{R}^1\text{OH} \end{array} \begin{array}{c} \text{OR} \\ \hline \\ \text{OR}^1 \end{array}$$

Figure 15

Figure 16

Figure 17

#### Figure 18

Figure 19

Figure 20

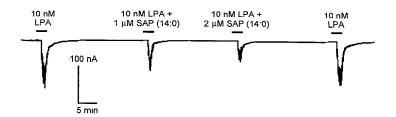


Figure 21

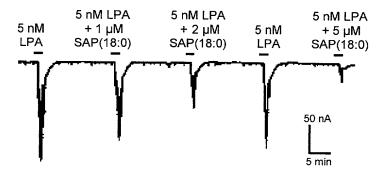
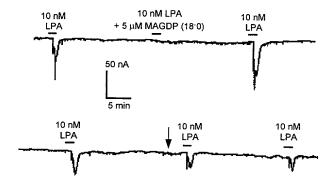


Figure 22



Figures 23A-B

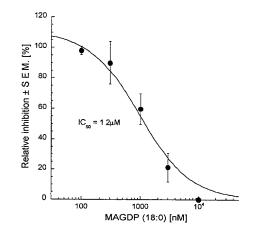


Figure 24

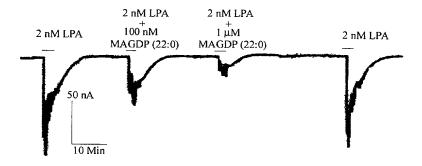


Figure 25

# 16/26

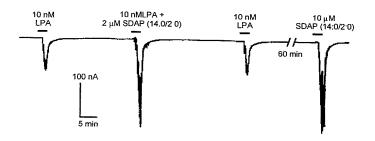


Figure 26

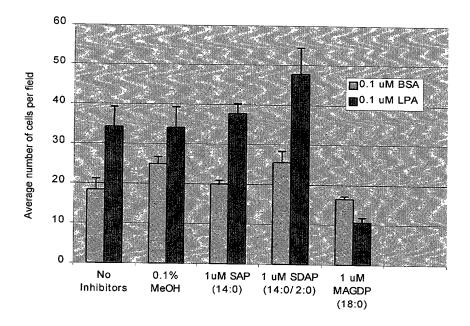
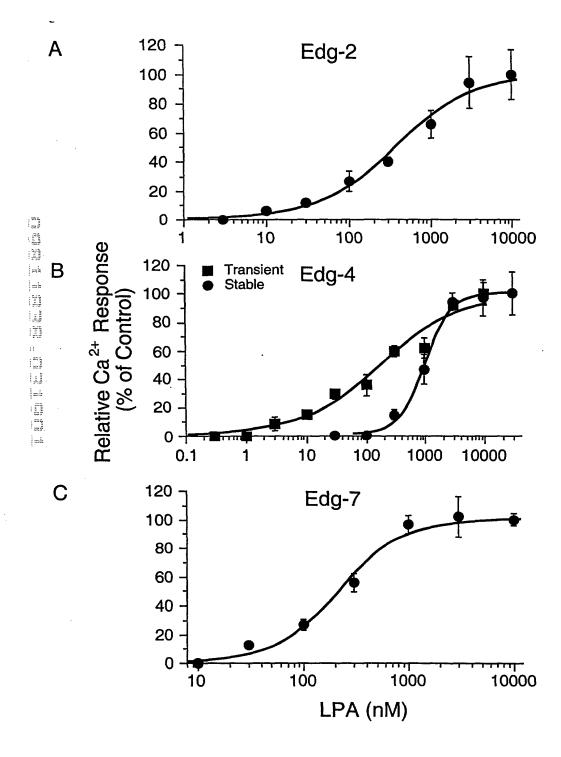
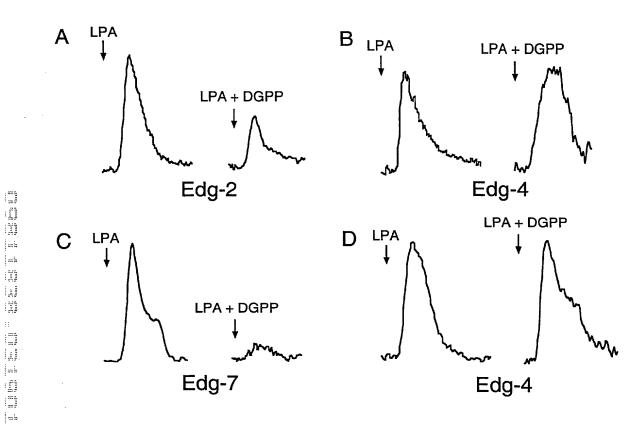


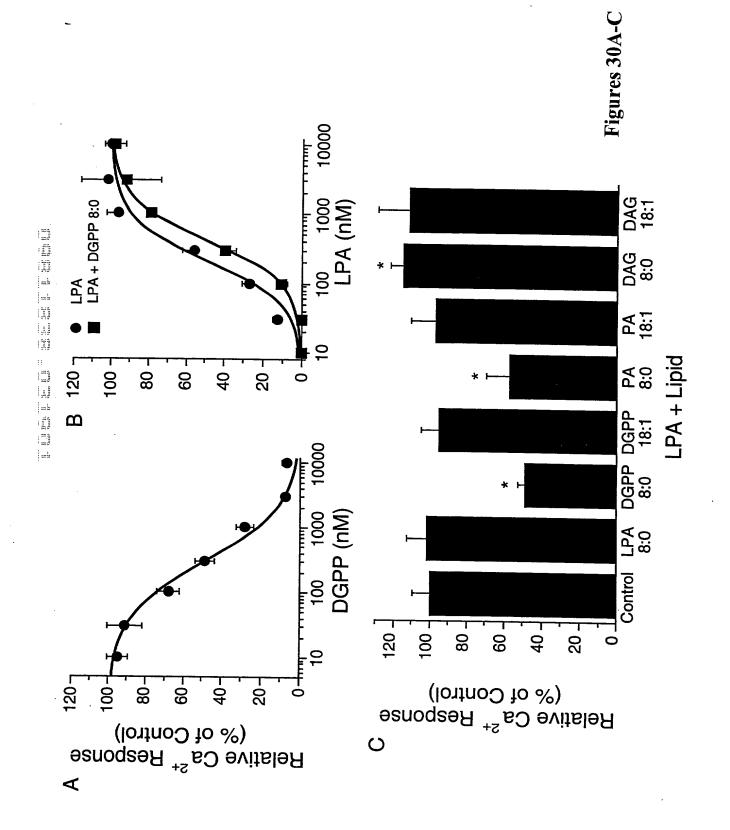
Figure 27

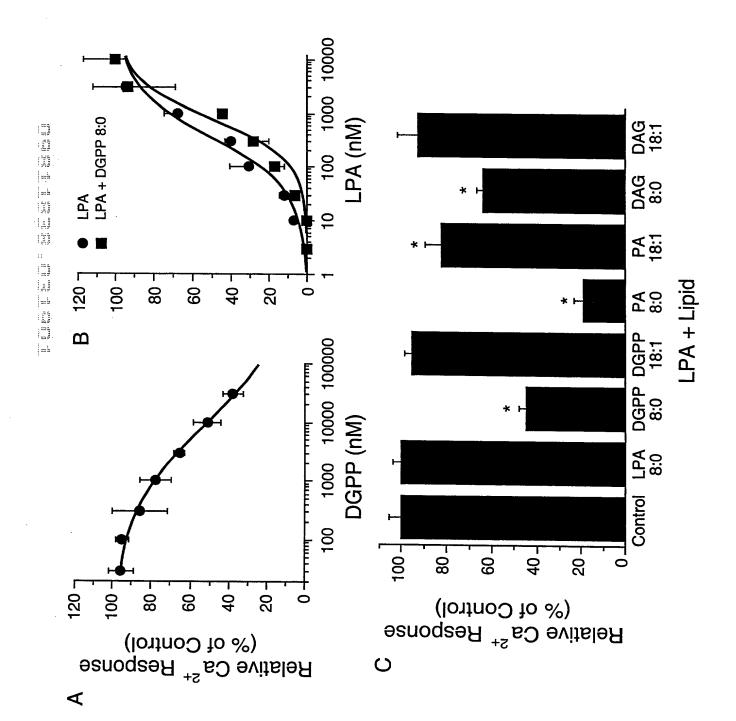


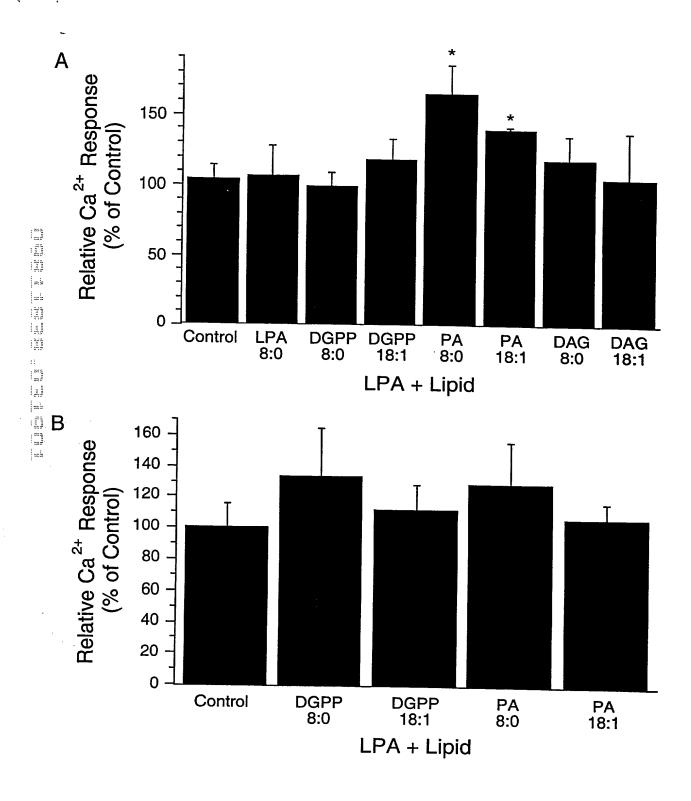
Figures 28A-C



Figures 29A-D

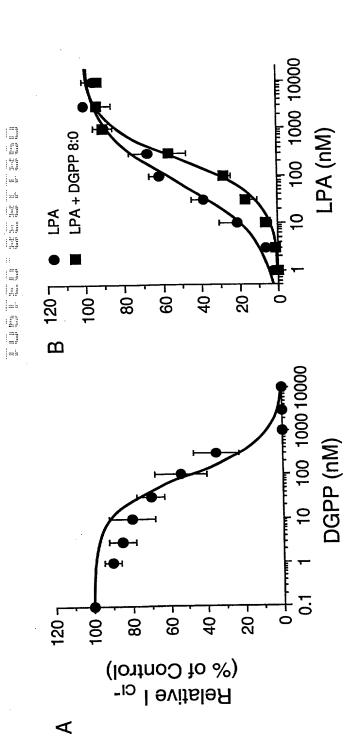


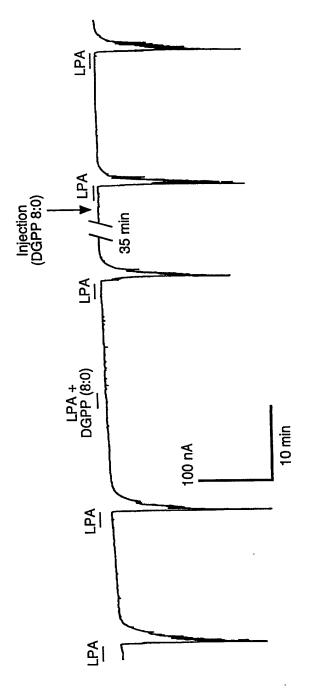




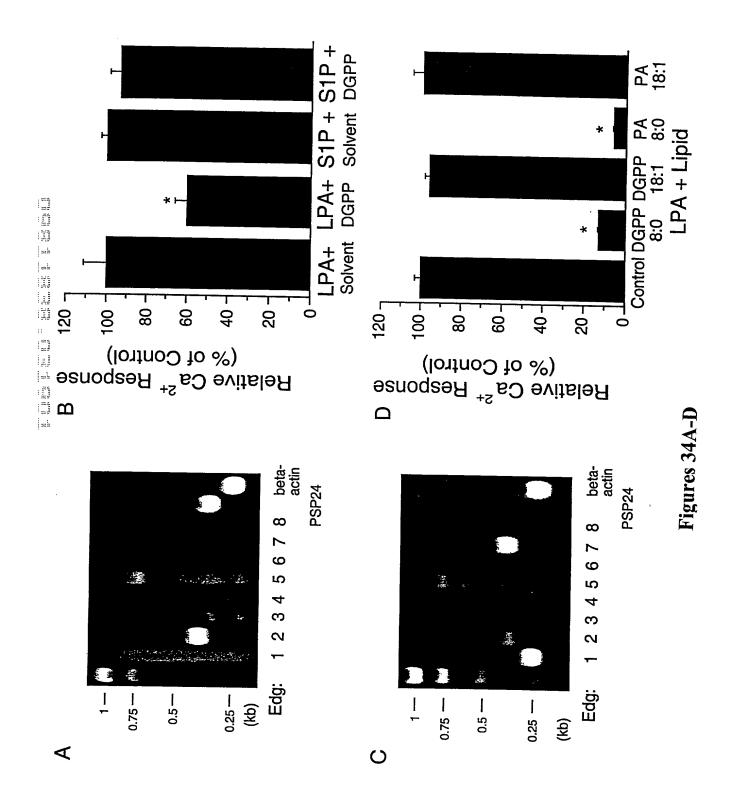
Figures 32A-B







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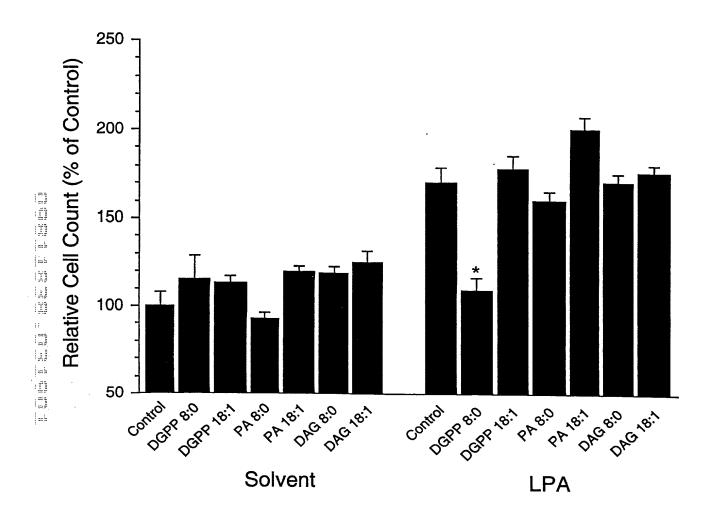


Figure 35

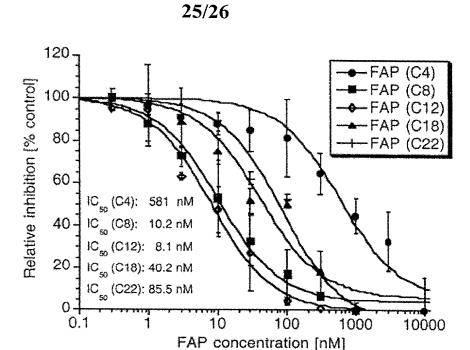


Figure 36

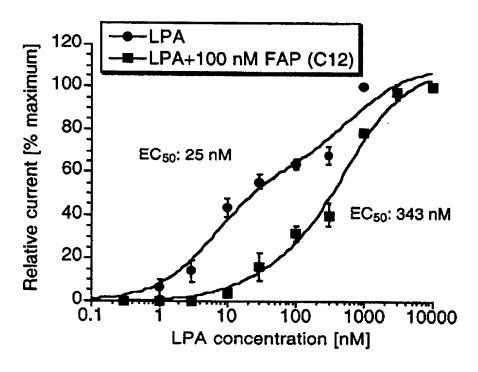


Figure 37



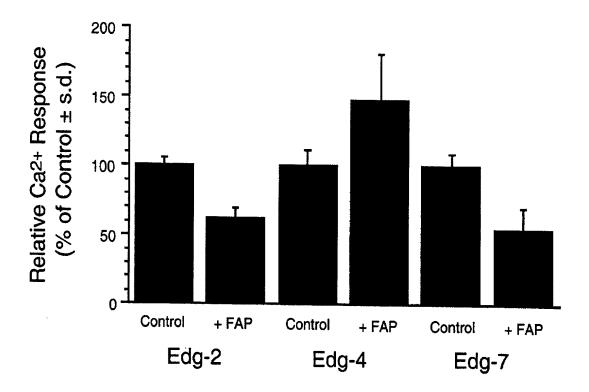


Figure 38